What is claimed is:

1. A plasma processing apparatus having a vacuum chamber for generating plenty of inductively coupled plasmas therein, comprising:

a first very high frequency power source that supplies a very high frequency power having a frequency of 20 to 300MHz; and

a plurality of antenna units being parallel-connected with each other and receiving the very high frequency power from the first very high frequency power source;

an antenna being comprised of the plurality of antenna unit;

wherein the vacuum chamber has a reaction space where the inductively coupled plasmas are generated by the plurality of antenna units.

2. An apparatus according to claim 1, wherein one of the antenna units has at least one variable load that is connected in series.

3. An apparatus according to claim 2, wherein the antenna units having at least one variable load is located in an outer part of the antenna.

4. An apparatus according to claim 3, wherein the variable load is a variable capacitor.

5. An apparatus according to claim 1, further comprising an impedance matching box that is connected to the very high frequency power source and the antenna.

6. An apparatus according to claim 5, wherein the parallel-connected antenna units maintain a resonance state therebetwee.

7. An apparatus according to claim 6, further comprising a chuck in the vacuum chamber for mounting a substrate thereon.

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8. An apparatus according to claim 7, further comprising a second very high frequency power source that supplies a very high frequency power having a frequency of 20 MHz to 300 MHz to the chuck.

9. An RF power supplying apparatus, comprising:

a very high frequency power source supplying a very high frequency power having a frequency of 20 MHz to 300 MHz;

an impedance matching box connected to the very high frequency power source;

a plurality of antenna units connected in parallel with each other; and

an antenna being comprised of the plurality of antenna units; and

wherein each antenna unit has at least one variable capacitor and a coil antenna.